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concentration less than 1800 ppm HC is found at an elapsed time of 30 seconds (mt=30).

(d) *Second-chance test.* If the vehicle fails the first-chance test, the test timer resets to zero (tt=0) and a second-chance test is performed. The overall maximum test time for the second-chance test is 200 seconds (tt=200). The test consists of a preconditioning mode using a chassis dynamometer, followed immediately by an idle mode.

(1) *Preconditioning mode.* (i) The mode timer starts (mt=0) when the dynamometer speed is within the limits specified for the vehicle engine size in accordance with the following schedule. The mode continues for a minimum elapsed time of 30 seconds (mt=30). If the dynamometer speed falls outside the limits for more than five seconds in one excursion, or 15 seconds over all excursions, the mode timer resets to zero and resumes timing.

DYNAMOMETER TEST SCHEDULE

Gasoline engine size, No. cylinders	Roll speed, mph (kph)	Normal loading, brake hp (kilowatts)
4 or less	22–25 (35–40)	2.8–4.1 (2.1–3.1).
5–6	29–32 (47–52)	6.8–8.4 (5.1–6.3).
7 or more	32–35 (52–56)	8.4–10.8 (6.3–8.1).

(2) *Idle mode.*—(i) *Ford Motor Company and Honda vehicles.* (Optional.) The engines of 1981–1987 model year Ford Motor Company vehicles and 1984–1985 model year Honda Preludes must be shut off for not more than ten seconds and restarted. This procedure may also be used for 1988–1989 model year Ford Motor Company vehicles but may not be used for other vehicles. The probe may be removed from the tailpipe or the sample pump turned off if necessary to reduce analyzer fouling during the restart procedure.

(ii) The mode timer starts (mt=0) 5 seconds after the dynamometer speed has reached zero. The minimum idle mode length is determined as described in paragraph (d)(2)(iii) of this section. The maximum idle mode length is 90 seconds elapsed time (mt=90).

(iii) The pass/fail analysis begins after an elapsed time of ten seconds (mt=10). A pass or fail determination is made for the vehicle and the mode is terminated in accordance with paragraphs (d)(2)(iii) (A) through (D) of this section.

(A) The vehicle passes the idle mode and the test is immediately terminated if, prior to an elapsed time of 30 seconds (mt=30), measured values are less than or equal to 100 ppm HC and 0.5 percent CO.

(B) The vehicle passes the idle mode and the test is terminated at the end of an elapsed time of 30 seconds (mt=30) if, prior to that time, the criteria of paragraph (d)(2)(ii)(A) of this section are not satisfied, and the measured values are less than or equal to the applicable short test standards as determined by the procedure described in paragraph (a)(2) of this section.

(C) The vehicle passes the idle mode and the test is immediately terminated if, at any point between an elapsed time of 30 seconds (mt=30) and 90 seconds (mt=90), measured values are less than or equal to the applicable short test standards described in paragraph (a)(2) of this section.

(D) The vehicle fails the idle mode and the test is terminated if none of the provisions of paragraphs (d)(2)(ii)(A), (B), and (C) of this section is satisfied by an elapsed time of 90 seconds (mt=90).

[58 FR 58409, Nov. 1, 1993]

§ 85.2220 Preconditioned two speed idle test—EPA 91.

(a) *General requirements.*—(1) *Exhaust gas sampling algorithm.* The analysis of exhaust gas concentrations begins ten seconds after the applicable test mode begins. Exhaust gas concentrations must be analyzed at a minimum rate of once every 0.75 second. The measured value for pass/fail determinations is a simple running average of the measurements taken over five seconds.

(2) *Pass/fail determination.* A pass or fail determination is made for each applicable test mode based on a comparison of the short test standards contained in §§ 85.2203 and 85.2204, and the measured value for HC and CO as described in paragraph (a)(1) of this section. A vehicle passes the test mode if any pair of simultaneous values for HC and CO are below or equal to the applicable short test standards. A vehicle